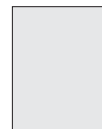
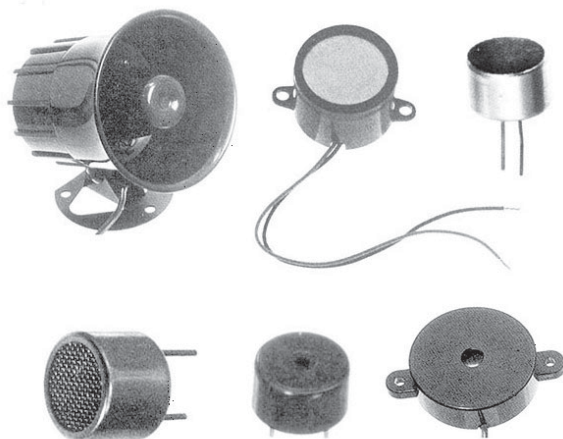




## PIEZO ELEMENTI

PIEZO ELEMENTI  
PIEZO ZUJALICE  
SIRENE  
HORNA ZVUČNIK  
ULTRAZVUČNE KAPSULE





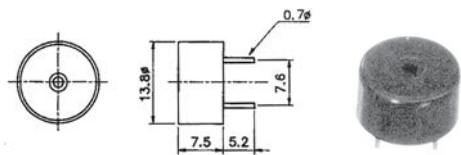
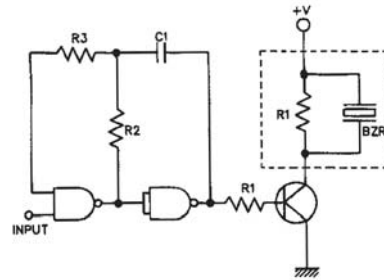
# ZVUČNICI

# ZV

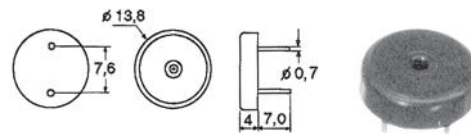
## PIEZO ELEMENTI. . . . . ZVPE

Tip	F <sub>R</sub> (kHz)	U <sub>max</sub> (V <sub>pp</sub> )	SPL <sub>min.</sub> (dB)	I <sub>A</sub> (mA)	C (pF)
1240P	4,1	20	80	2,0	17000
1250P	5,0	25	80	1,5	15000
1540P	4,0	25	80	1,5	10000
2021P	2,0	30	75	5,0	35000
2040P	4,0	30	90	1,5	20000
2060W	6,0	30	90	1,5	12000
2726P	2,5	30	90	1,5	30000
2728W	2,8	30	80	1,5	30000
2745W	4,5	30	90	1,5	16000
3110W	1,1	40	85	1,5	48000

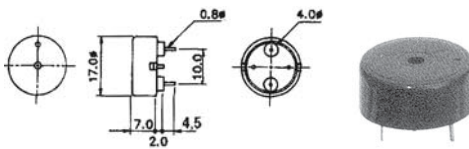
F<sub>R</sub> = rezonantna frekvencija, U<sub>max</sub> = max. napon, SPL<sub>min.</sub> = min. zvučni pritisak (5V pravougaoni talas, dB<sub>min./10cm</sub>), I<sub>A</sub> = potrošnja, C = kapacitet



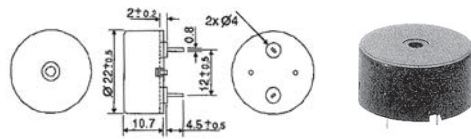
1240P 4,00



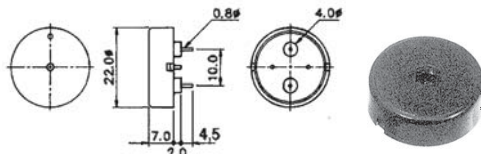
1250P 4,00



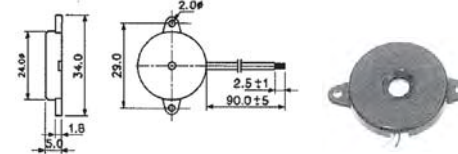
1540P 1,50



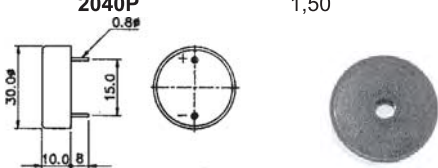
2021P 2,20



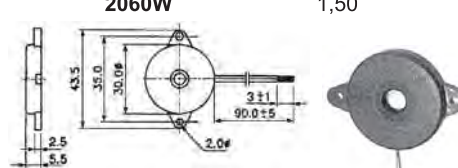
2040P 1,50



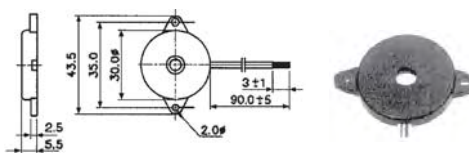
2060W 1,50



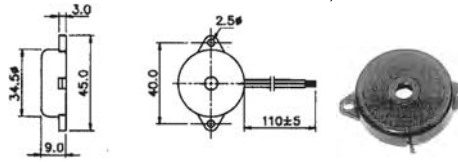
2726P 3,00



2728W 3,00



2745W 2,00



3110W 2,00



# ZVUČNICI

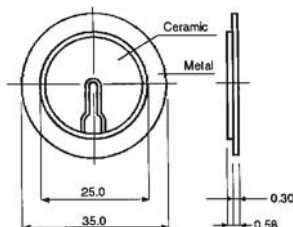
ZV

## PIEZO ELEMENTI. . . . . ZVPE

### Tehnički podaci

Rezonantna frekvencija: 2,9 kHz  
 Max. impedansa: 300Ω  
 Kapacitivnost: 25000 pF  
 Max. napon: 30 V<sub>pp</sub>  
 Radni opseg: -20°C ... +60°C

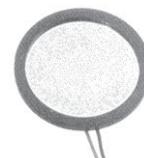
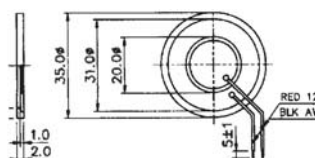
**35B29F** Cena: 2,00



### Tehnički podaci

Rezonantna frekvencija: 1,1 kHz  
 Kapacitivnost: 48000 pF  
 Max. napon: 40 V  
 Zvučni pritisak: 70 dB  
 Max. struja: 1,5 mA  
 Radni opseg: -20°C ... +60°C

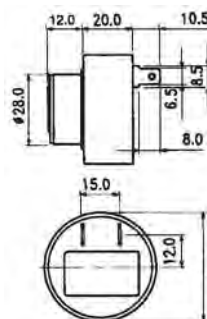
**3112** Cena: 1,50



## piezo zujaliCe. . . . . zvpZ

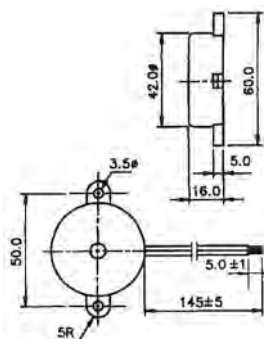
Tip	Cena	F <sub>R</sub> (kHz)	U (V DC)	SPL <sub>min</sub> (dB)	I <sub>max</sub> (mA)
<b>35N29EP</b>	13,00	2,9	3,0...28	90	8

F<sub>R</sub> = Rezonantna frekvencija, U = Nominalni napon,  
 SPL<sub>min</sub> = Min. zv. prit pri 12V DC, na rastojanju od 10cm,  
 I<sub>max</sub> = Struja pri 12 V DC



Tip	Cena	F <sub>R</sub> (kHz)	U (V DC)	SPL <sub>min</sub> (dB)	I <sub>max</sub> (mA)
<b>35N29W</b>	8,00	2,9	3,0...28	90	8

F<sub>R</sub> = Rezonantna frekvencija, U = Nominalni napon,  
 SPL<sub>min</sub> = Min. zv. prit pri 12V DC, na rastojanju od 10cm,  
 I<sub>max</sub> = Struja pri 12 V DC





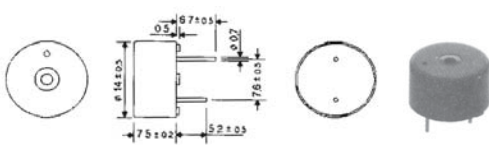
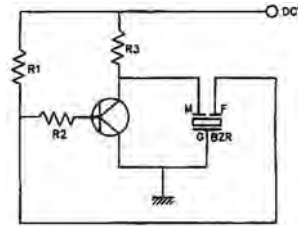
# ZVUČNICI

ZV

## PIEZO ZUJALICE. . . . . ZVPZ

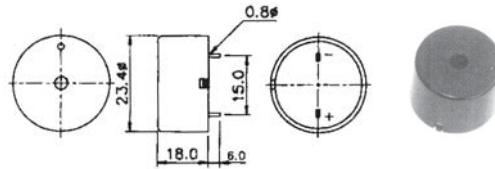
Tip	F <sub>R</sub> (kHz)	U (V <sub>pp</sub> )	SPL <sub>min.</sub> (dB)	I <sub>max.</sub> (mA)
12N40PA	4,1	3,0...15	83	10
20N38P	3,8	3,0...28	85	12
21N30P	3,0	1,5...30	80	12
21N30W	3,0	1,5...30	80	12
21H28P	2,8	9,0...12	103	70
27N35P	3,5	3,0...28	90	8

F<sub>R</sub> = rezonantna frekvencija, U = napon,  
 SPL<sub>min.</sub> = min. zvučni pritisak (pri 12V DC, na rastojanju od 10cm), I<sub>max.</sub> = struja pri naponu 12V DC



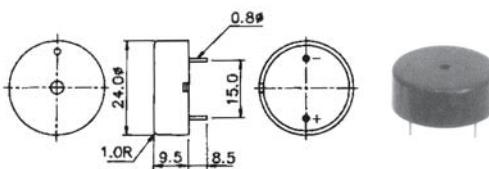
12N40PA

6,00



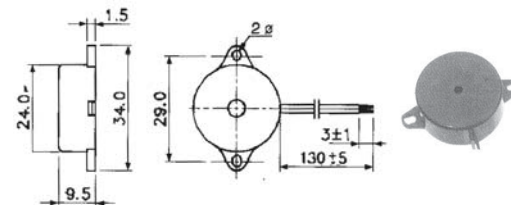
20N38P

6,00



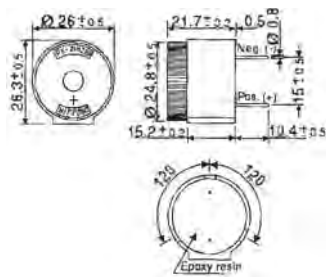
21N30P

6,00



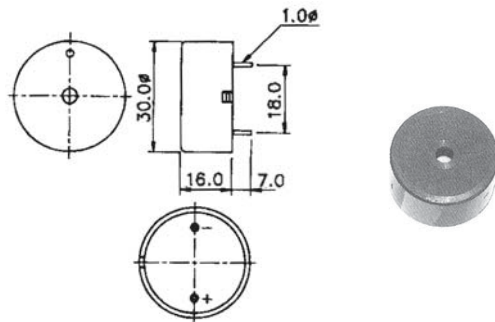
21N30W

6,00



21H28P

12,00



27N35P

7,00





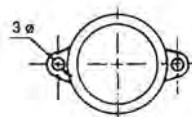
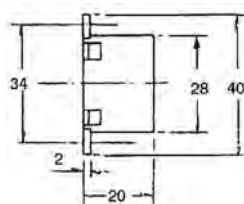
## ZVUČNICI

ZV

PIEZO ZUJALICE . . . . . ZVPZ  
ELEKTRONSKE ZUJALICE . . . . . ZVPZE

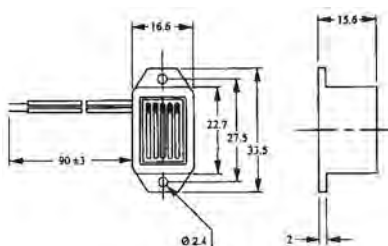
Tip	Cena	U (V)	I (mA)	SPL (dB)	F <sub>R</sub> (kHz)
90S	6,00	5-12	40	90	3

U = Napon, I = Struja, SPL = Zvučni pritisak (30cm), F<sub>R</sub> = Frekvencija



Tip	Cena	U (V)	I (mA)	SPL (dB)	F <sub>R</sub> (kHz)
3	5,00	1,7-5	25	75	400
6	5,00	2,3-9	25	75	400
9	5,00	6-15	25	75	400
12	5,00	9-20	25	75	400

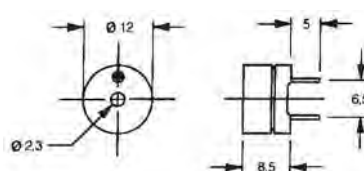
U = Napon, I = Potronja, SPL = Zvučni pritisak, F<sub>R</sub> = Frekvencija



AC ZUJALICE, MINIJATURNE . . . . . ZVPZM

### Tehnički podaci

Nominalni napon: 1,5V ~  
Radni napon: 1,1 - 1,8 V  
Max. struja: 32 mA  
Impedansa: 15Ω  
Min. zvučni pritisak: 85 dBA  
Rezonantna frekvencija: 2048 Hz  
Radni opseg: -10°C ... +60°C



60P                      Cena: 1,50





# ZVUČNICI

ZV

PIEZO ZUJALICE . . . . . ZVPZ

ELEKTROMEHANIČKE ZUJALICE . . . . . ZVPZEM

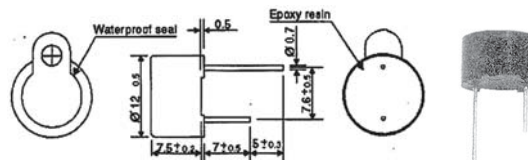
DC

Tehnički podaci:

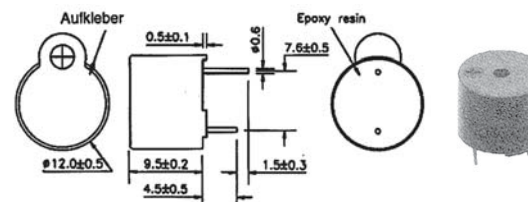
Radna temperatura: -20°C ... +70°C

Tip	Cena	F <sub>R</sub> (kHz)	U (V DC)	SPL <sub>min</sub> (dB)	I <sub>max</sub> (mA)
DC2-5	6,00	2,3	5	85	50
DC3	5,00	2,3	3	85	30
DC5	5,00	2,3	5	85	50
DC9	5,00	2,3	9	85	50
DC12	5,00	2,3	12	85	50

F<sub>R</sub> = rezonantna frekvencija, U = napon,  
SPL<sub>min</sub> = min zvučni pritisak pri 5V DC  
i rastojanju od 10cm, I<sub>max</sub> = struja



2-5



DC3, DC5, DC9, DC12

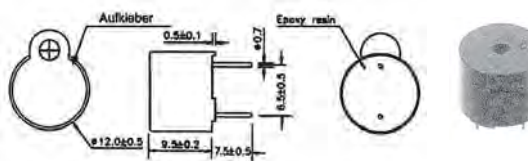
AC

Tehnički podaci:

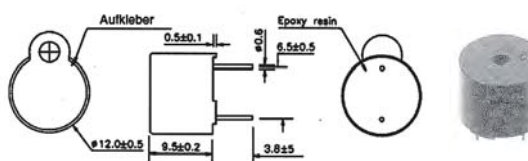
Radna temperatura: -20°C ... +70°C

Tip	Cena	F <sub>R</sub> (kHz)	U (V DC)	SPL <sub>min</sub> (dB)	I <sub>max</sub> (mA)	Z (Ω)
AC1	1,50	2400	1,5	85	32	16
AC5	1,50	2400	5	85	40	45
AC12	1,50	2400	12	85	40	140

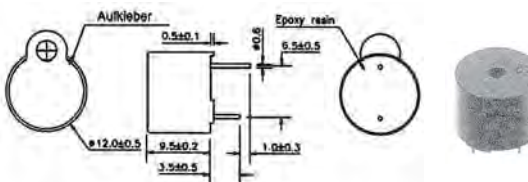
F<sub>R</sub> = rezonantna frekvencija, U = napon, I<sub>max</sub> = struja  
SPL<sub>min</sub> = min. zvuč. pritisak pri 5V DC i rastojanju od 10cm,  
Z = impedansa



AC1



AC5



AC12





# ZVUČNICI

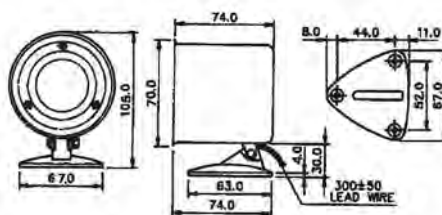
ZV

SIRENE . . . . . ZVS

PIEZO SIRENE . . . . . ZVSP

**Tehnički podaci:**

Napon: 12 V DC  
 Frekvencija: 1,5 ... 3,5 kHz  
 Potronja: 400 mA / 12 V DC  
 Zvučni pritisak: 110 dB / 12 V DC  
 Impulsna učestanost: 3,3 Hz  
 Temp. opseg: -20 ... + 60°C



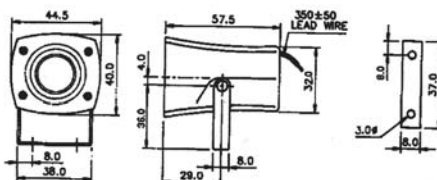
513



36,00

**Tehnički podaci:**

Napon: 12 V DC  
 Frekvencija: 1,5 ... 4,0 kHz  
 Potronja: 200 mA / 12 V DC  
 Zvučni pritisak: 105 dB / 12 V DC  
 Impulsna učestanost: 4,5 Hz  
 Temp. opseg: -20 ... + 60°C



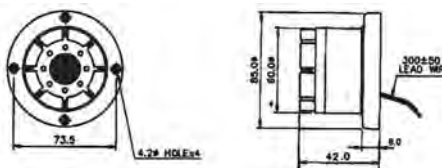
523



18,00

**Tehnički podaci:**

Napon: 12 V DC  
 Frekvencija: 2,3 / 3,5 kHz  
 Potronja: 200 mA / 12 V DC  
 Zvučni pritisak: 105 dB / 12 V DC  
 Impulsna učestanost: 1,2 Hz  
 Temp. opseg: -20 ... + 60°C



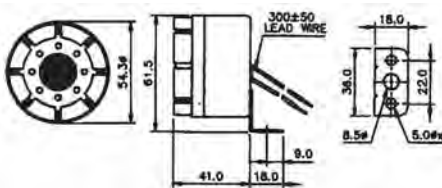
532



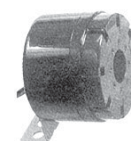
26,00

**Tehnički podaci:**

Napon: 12 V DC  
 Frekvencija: 2,3 / 3,5 kHz  
 Potronja: 200 mA / 12 V DC  
 Zvučni pritisak: 105 dB / 12 V DC  
 Impulsna učestanost: 1,2 Hz  
 Temp. opseg: -20 ... + 60°C



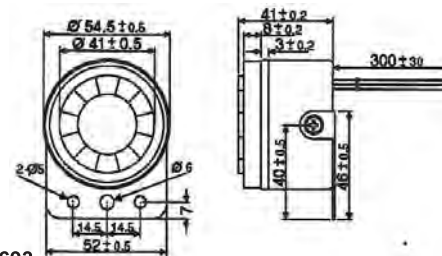
552



26,00

**Tehnički podaci:**

Napon: 12 V DC  
 Frekvencija: 1,5 ... 3,8 kHz  
 Potronja: 200 mA / 12 V DC  
 Zvučni pritisak: 110 dB / 12 V DC  
 Temp. opseg: -10 ... + 55°C



693



26,00



735



## ZVUČNICI

ZV

**SIRENE** . . . . . **ZVS**

**HORN SIRENE** . . . . . **ZVSH**

### Tehnički podaci:

Materijal: ABS  
 Radni napon: 12 V DC  
 Frekvencija: 1,5 ... 3,5 kHz  
 Potronja: 310A, 380A: 1200 mA / 12 V DC  
           330, 380: 400 mA / 12 V DC  
 Zvučni pritisak: 310A, 380A: 115 dB / 12 V DC  
                   330, 380: 110 dB / 12 V DC  
 Učestanost impulsa: 3,3 Hz  
 Temp. opseg: -20 ... + 60°C



310A

380, 380A

Tip	Cena	φ (mm)	Duzina (mm)
310A	34,00	100	100
330	32,00	135	150
380	27,00	90	100
380A	34,00	90	100



330

### Tehnički podaci:

Materijal: ABS  
 Radni napon: 12 V DC  
 Frekvencija: 1,5 ... 3,5 kHz  
 Potronja: 600 mA / 12 V DC  
 Zvučni pritisak: 110 dB / 12 V DC  
 Učestanost impulsa: 3,3 Hz  
 Temp. opseg: -20 ... + 60°C  
 Prečnik: 90 mm  
 Duzina: 100 mm



386

28,00

### Tehnički podaci:

Materijal: ABS  
 Radni napon: 12 V DC  
 Frekvencija: 1,5 ... 3,5 kHz  
 Potronja: 600 mA / 12 V DC  
 Zvučni pritisak: 110 dB / 12 V DC  
 Učestanost impulsa: 3,3 Hz  
 Temp. opseg: -20 ... + 60°C  
 Dimenzije: 120 x 200 x 235 mm



350

66,00







## ZVUČNICI

ZV

HORNA ZVUČNIK . . . . . ZVHZ

### Tehnički podaci:

Materijal:	Aluminijum
Snaga na ulazu:	10 W
Impedansa:	8 $\Omega$
Frekventni opseg:	0,5 ... 7 kHz
Radna temperatura:	-20°C ... + 60°C
Prečnik levka:	135 mm
Du(ina:	152 mm



120 32,00

MIKROFONSKE KAPSULE . . . . . ZVMK

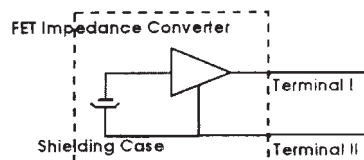
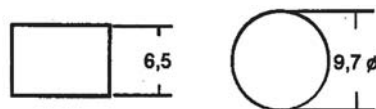
KONDENZATORSKE . . . . . ZVMKK

### Tehnički podaci:

Osetljivost:	- 54 ... -68 dB
Izlazna impedansa:	2 k $\Omega$
Nominalni napon:	4,5 V
Radni napon:	1,5 ... 10 V
Struja, max:	< 0,4 mA
Ekvivalentni šum:	< 34 dB
Dimenzije:	9,7 x 6,5 mm
Te(ina:	< 1g
Temperatura lemljenja:	260°C / 5s
Promena osetljivosti:	$\pm$ 3 dB



Cena: 1,00

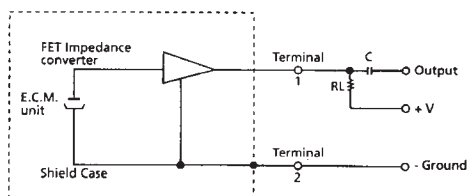




## ZVUČNICI

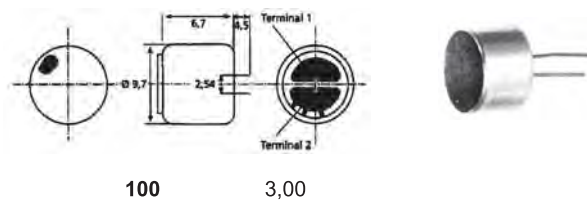
ZV

### MIKROFONSKE KAPSULE . . . . . ZVMK ELEKTRIČNE . . . . . ZVMKE

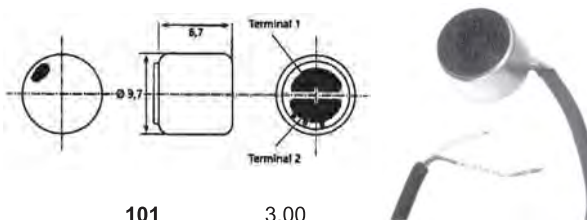


#### Tehnički podaci:

Frekventni opseg: 50 ... 10000 Hz  
 Osetljivost: 5,6 mV / Pa / 1kHz  
 Izlazna impedansa: 2 k $\Omega$   
 Odnos signal/šum: > 34 dB  
 Struja (mA): < 0,5  
 Spre(ni kondenzator): 0,1 ... 4,7  $\mu$ F  
 Radni opseg: -0 ... + 40°C  
 Potrošnja: 1,5...10 V DC / 0,5 mA max.



100 3,00



101 3,00

#### Tehnički podaci:

Frekventni opseg: 20 ... 20000 Hz  
 Osetljivost: 6 mV / Pa / 1 kHz  
 Izlazna impedansa: 2 k $\Omega$ , RL: 2,2 k $\Omega$   
 Odnos signal/šum: > 58 dB  
 Spre(ni kondenzator): 0,1 ... 4,7  $\mu$ F  
 Radni opseg: 0 ... 40°C  
 Potrošnja: 1,5...10 V DC / 0,5 mA max.



200 9,00

### ULTRAZVUČNE KAPSULE . . . . . ZVUK

#### Tehnički podaci:

Frekvencija ( $\pm$  1kHz): 40 kHz  
 5 mV / Pa  
 120 dB  
 Kapacitivnost: 2400 pF  
 20 V  
 Prijemna **R** 15,00  
 Predajna **T** 15,00

